

REMARKS

Claims 1, 3-7, 9-11, 13-17, 19-21 and 23-28 are all of the pending claims, with claims 1, 7, 11, 17, 21, 25 and 27 being written in independent form. By virtue of this amendment, Applicant cancels claims 2, 8, 12, 18 and 22 without prejudice or disclaimer and adds new claims 25-28 to recite various features of the invention.

I. Claim Rejection Under 35 U.S.C. §112(2nd)

The Examiner rejects claims 5 and 15 under 35 U.S.C. §112(2nd) because they recite both a broad feature (i.e., a laser), and a preferable narrower feature (i.e., an excimer laser). To address the Examiner's concerns, Applicant amends claims 5 and 15 by deleting the term "and preferably an excimer laser." Applicant believes that the amended claims more particularly point out and distinctly claim the subject matter regarded as the invention, thereby overcoming the raised rejection under 35 U.S.C. §112(2nd).

II. Claim Rejections on Prior Art Grounds:

The Examiner rejects claims 17-24 under 35 U.S.C. §102(e) as being anticipated by US 6,268,906 to Suzuki ("Suzuki"); and claims 1-16 under 35 U.S.C. §103(a) as being obvious over Suzuki in view of US 5,523,193 to Nelson ("Nelson"). Applicant respectfully traverses all of these rejections in view of the following remarks.

A. Independent Claims 1, 7, 11, 17, and 21:

Each of Independent claims 1, 7, 11, 17, and 21 recite (albeit in different formats) that the trigger signal is controlled so that the trigger signal timing is “varied.” An example, non-limiting embodiment of this feature is discussed in the instant specification at page 16 (lines 25+), for example.

To reject claims 1, 7, 11, 17, and 21, the Examiner relies upon the Suzuki reference to teach most of the features of the claimed invention, including controlling a trigger signal to compensate for flash-to-flash time jitter.

As shown in Figs. 2 of Suzuki, the disclosed exposure method may involve calculating the fluctuation of dummy light emission timings (steps 102-104). This timing fluctuation may be used to obtain a minimum number (“Nmin”) of exposure pulses necessary for controlling the uniformity of the luminous intensity within predetermined accuracy. Nmin may be used to provide a coarse adjustment feature (steps 107 and 108) and/or a fine adjustment feature (steps 107 and 108), which may result in the number N of exposure pulses being changed. When scanning is initiated (step 110), the main control system 13 supplies light emission trigger signals TP at constant intervals until the desired number of pulses are performed (steps 111-113). That is, according to Suzuki’s straightforward disclosure (e.g., col. 9, lines 44-48), the control system 13 emits trigger signals in “constant cycles.” Certainly then, Suzuki is not pertinent to controlling a trigger signal so that the trigger signal timing is “varied,” as recited in each of independent claims 1, 7, 11, 17 and 21.

B. Independent Claims 25 and 27:

Independent claims 25 and 27 recite (among other things) that “during scanning,” the control system measures a delay between a previous trigger signal and a resulting exposure. An example, non-limiting embodiment of this feature is discussed in the instant specification at page 16 (lines 25+), for example.

The Suzuki reference is not believed to be pertinent to at least this feature. In fact, Suzuki’s straightforward disclosure teaches that all of the pulsed light measurements are based on dummy light emissions, which do not expose the wafer. Further, and with reference to Fig. 2 of Suzuki, no pulsed light measurements are taken after scanning begins (step 110).

C. Summary:

In summary, Applicant respectfully submits that each of independent claims 1, 7, 11, 17, 21, 25 and 27 recites features that are practically and conceptually different than the Suzuki reference. Furthermore, the secondary reference to Nelson is not believed to make up for the deficiencies of the Suzuki reference noted above. Accordingly, even if combined in the manner suggested by the Examiner, the prior art would still not teach each and every feature of the invention defined by the independent claims of the instant application.

CONCLUSION

In view of the above, Applicant respectfully requests reconsideration and allowance of each of claims 1, 3-7, 9-11, 13-17, 19-21 and 23-28.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number of the undersigned below.

If necessary, the Commissioner is authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY & PIERCE, P.L.C.

By _____

John A. Castellano, Reg. No. 35,094
P.O. Box 8910
Reston, Virginia 20195
(703) 668-8000

JAC/HRH:ewd